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Rapid population increase and urban housing systems: legitimization of centralized emergency accommodations for displaced persons

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Rapid population increase and urban housing systems: legitimization of centralized emergency accommodations for displaced persons

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Abstract

Rapid population increase and urban housing systems: legitimization of centralized emergency accommodations for displaced persons

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Sudden population influxes in cities place unexpected demands on the urban housing system. During these influxes, decisions made to accommodate displaced persons are often controversial, potentially hindering the ability of organizations involved to respond. Understanding how individuals within those organizations legitimize (i.e. perceive as desirable, proper, or appropriate) and delegitimize (i.e. perceive as undesirable or inappropriate) actions taken to accommodate internationally displaced persons is thus crucial to make decisions that will lead to efficient institutional responses. Existing research relating to the adaptation of urban housing systems for international population influxes in developed countries primarily focus on the long-term response rather than on the short-term response. This study seeks to address this research gap by providing an overview of the perspectives of stakeholders involved in the provision of centralized accommodations for displaced persons during the refugee crisis in 2015 in Germany. A qualitative analysis of interview data was performed to obtain a holistic understanding of the studied institutional response. Twenty-five interviews with employees involved in different steps of the process for providing centralized accommodations for displaced

persons were conducted in 2016. Interview content was analyzed to capture the way involved individuals legitimized (1) the overall provision of centralized accommodations for displaced persons, and (2) the choice for specific types of accommodations commonly used. Results show that interviewed individuals mainly legitimized the process for providing centralized accommodations to displaced persons based on their individual convictions and by using procedural, consequential, influence and exchange legitimacy. They mainly delegitimized this process based on self-interested calculations and by using exchange and influence legitimacy. Finally, results indicate that short-term accommodations, such as sport halls, were the least preferred option due to the poor perceived livability, while solutions such as modular housing and the renovation of unused buildings were the most preferred options due to perceived benefits for displaced persons, informants, and the hosting German cities.

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Chapter 1: Introduction

Worldwide, the current instability in the Middle East has triggered the largest displacement of persons seeking asylum since the Second World War (UNHCR, 2016). In 2015, the European Union received over 1.25 million first time asylum applications; more than twice the total number of asylum applications received in 2014 (UNHCR, 2016). This high number of asylum applications received by Europe in 2015 was nearly double the previous sharp peak of roughly 700,000 applications received by Europe in 1992 after the fall of the Iron Curtain and the collapse of the Soviet Union (Eurostat, 1996). This influx of asylum seekers continued into 2016 with 1.2 million first time asylum applications recorded in the European Union (Eurostat, 2017). Of the 2015 European asylum applicants, more than a third registered in Germany (Eurostat, 2016), creating a circumstance of an unprecedented rapid influx of internationally displaced persons that the local housing systems needed to accommodate.

The provision of adequate housing for cities' inhabitants is critical for the livelihood, well-being and public health of the urban communities locally and worldwide. The ability of cities to provide this critical service can be hindered when rapid population increases place unexpected demands on urban housing systems. An understanding of the cities' emergency process for adapting the housing system during unanticipated population influxes can aid stakeholders in reacting to such population dynamics and foreseeing related needs, such as types of accommodations.

In this study, by qualitatively analyzing semi-structured interviews, insight is provided into how stakeholders legitimized and delegitimized the provision of centralized accommodations to displaced persons in Germany during the refugee crisis. Legitimacy theory described by Suchman (1995) was used for this study. According to him,

legitimizing an action corresponds to perceiving this action as "*desirable, proper, or appropriate"* (e.g. this action is "the right thing to do", or the best option). Suchman (1995) also states that there are 3 major types of legitimacy and 9 subtypes of legitimacy (see section 2.3. for more information). First, we provide a synthesis of the reasons that interviewed stakeholders explicitly mentioned to justify both the provision and non-provision of these centralized accommodations. The types of legitimacy that were used by interviewees are then discussed to enable a more complete understanding of the research area. Finally, an overview of the types of accommodations that were used during the refugee crisis is provided with corresponding stakeholders' perspectives. The perspectives are summarized based on data from interviews and select legitimations.

Understanding the way that institutions legitimize their involvement in providing emergency centralized housing is crucial for efficient decision-making in the case of unusual and sudden population changes. During such emergency situations, regulatory systems in place are not always seen to be appropriate to the situation, and individual beliefs and expectations play a great role in decision-making and personal effectiveness at the work place. Individual appreciation of emergency situations are dictated by expectations of appropriateness – normative systems, or common beliefs and shared logics – cultural-cognitive systems (Scott 2013). Sudden international population influxes can raise controversy within the hosting country. In Germany, decisions regarding migration policies made by Angela Merkel were controversial: they were highly criticized as well as greatly saluted by German people, as shown by the high number of demonstrations both pro and against the accommodation of refugees in 2016 (e.g., BBC News, 2016; The Guardian, 2016; The Telegraph, 2016). Thus, during such controversies, understanding the way that individual expectations and beliefs drives stakeholders' involvement would help efficient decision-making and communication within institutions. Decision-makers could

choose the most accepted housing solutions and associated procedures, and they would know better how to communicate so that their goals are accepted by individuals involved in working towards these goals.

This study characterizes the involvement of government agencies, nonprofits, and companies, responsible for providing emergency centralized housing for displaced persons arising from the refugee crisis in 2015 and in the first half of 2016 in four German cities. Qualitative analysis of interviews conducted with individuals working with stakeholders involved in the provision of centralized accommodations for displaced persons was used to describe the process of legitimizing the accommodation of displaced persons. Answers sought in this study include: *How did stakeholders explicitly (de)legitimize the process for finding, renovating, building, and managing centralized housing accommodations for asylum seekers and refugees? Which types of legitimacy were used and why? Which housing solutions should be (or have been) adopted (e.g. long- or short-term accommodations)?*

Chapter 2: Points of Departure

2.1. EMERGENCY HOUSING

Previous research regarding emergency housing primarily focuses on three areas: refugee camps in developing countries, internal displacements due to natural disasters, and decentralized housing for internationally displaced persons. Previous studies have focused on refugee camps for both internally and internationally displaced persons in developing countries with a focus on physical and mental health of those residing, such as the effects of inefficient water and sanitation services by Guthmann et al. (2006), and the public health aspects of refugee situations by Toole and Waldman (1997). However, the assessment of camps for displaced persons in developing countries does not address the impact of the emergency housing on the hosting city's infrastructure system. Other research topics include natural disaster-related internal displacements in both developing and developed countries (e.g., Levine et al., 2007; Gray and Mueller 2012). Previous research regarding disaster-related displacements typically pairs emergency responses with sustainable recoveries (e.g. Lizarralde et al., 2009). The information sought in this study could thus complement this existing knowledge as the international displacements (from the Middle East) and subsequent emergency response (in Germany) is geographically distinct from the recovery that is located in the countries of origin of displaced persons. Additional literature focuses on the long-term decentralized housing for internationally displaced persons (e.g. Rose, 2001; Evans, 2007); however the time scale of the cities' response is three to ten years, corresponding to the time needed to provide a stable housing situation (e.g. private flats) for displaced persons. This study seeks to assess the immediate implications of *centralized* housing. Presently, there is a gap in knowledge regarding centralized housing for internationally displaced persons in developed countries and the impact of this rapid population influx with limited front end planning on centralized accommodations. This

study aims to address this gap in knowledge by providing insight into different institutional responses to a sudden high influx of displaced persons in a developed country in the context of providing emergency centralized housing.

2.2. Global Projects & Cross-Cultural Impacts in Construction

To frame this project, we discuss past research pertaining to cross-cultural construction, in which we include both national and organizational cultural differences. For example, a considerable body of work focuses on how construction industries optimize the productivity of their cross-national projects. These studies were motivated by a growing need for efficient communication within global companies between agencies located in different countries. Mahalingam and Levitt (2007) noticed that several regulative, normative and cognitive differences amongst workers from different nationalities greatly hinders international institutions' productivity by triggering conflicts and misunderstandings. Chan and Tse (2003) illustrated that cultural clashes can be one of the most significant factors contributing to disputes in international projects. Additionally, they showed that those projects can lack a unified dispute resolution mechanism, which can hinder the ability of institutions to face conflicts. Namely, cultural differences are found to have a great effect on cross-national construction projects (Horii et al., 2005). Javernick-Will and Levitt (2009) and Javernick-Will and Scott (2010) studied knowledge types needed in global construction projects. They highlighted that normative knowledge – based on shared values and norms (e.g., corporate culture of participating companies) – and cultural-cognitive – based on widely shared beliefs (e.g., religion) – are important when compared with regulative knowledge (e.g., knowledge of rules). Those studies thus show that there is a need for good understanding of institutions' regulative, normative and cultural-cognitive systems (see glossary for more corresponding definitions) when obvious

related differences amongst workers exist (e.g., in global projects). Building on this work, existing research has also assessed the impact of national cultural values on infrastructure and construction choices (e.g., Kaminsky, 2015; Kaminsky, 2016). Finally, Orr and Scott (2008) highlighted a need for comprehension of cultural-cognitive, normative and regulative institutions when making decisions in large-scale global projects. Those studies highlight the importance of institutional impacts in decision-making processes, but target long-term decision-making in well-established institutions rather than on short-term emergency responses to a sudden disruptor such as the refugee crisis of interest to this study. Thus, this study aims to fill this knowledge gap by focusing on the effects of sudden disruptions on existing institutions involved in construction or urban planning.

2.3. LEGITIMACY THEORY

The theoretical basis of this analysis is predicated on the intuition that emergency response situations are particularly strongly influenced by stakeholders' desire to do the right (or, *legitimate*) thing. Emergency responses are usually characterized by a lack of guidelines and regulations to face sudden disruptions, and individuals involved in emergency responses may try to react according to their own appreciation of the situation. According to Suchman (1995), "*[l]egitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions.*" Actions can be directly legitimized (e.g., by emphasizing the outcomes of those actions), or indirectly legitimized (e.g., by legitimizing the organizations taking those actions). There are three *primary* types and nine subtypes of legitimacy (Suchman 1995). Examples of uses of the legitimacy subtypes pertaining to this study's topic are provided in **Table A.2** (simple hypothetical

examples) and **Table A.3** for an application of the theoretical definitions provided in the following paragraph.

(1) Pragmatic legitimacy relies on self-interested calculations of the most immediate audiences of the organization that is being legitimized. Pragmatic legitimacy usually rests on direct interactions between audience and organization, but can also rest on "*broader political, economic or social interdependencies*" (Suchman, 1995). Subtypes of pragmatic legitimacy include (Suchman 1995):

- Exchange legitimacy that represents a *"support for an organizational policy based on that policy's expected value to a particular set of constituents."*
- Influence legitimacy, which is the social aspect of pragmatic legitimacy and is used by individuals to support for an organization because they *"see it as being responsive to their largest interest.*"
- Dispositional legitimacy, which is used by individuals who *"react as though organizations were individuals,"* and legitimize their actions with dispositional attributions (e.g., organizations are trustworthy, wise).

(2) Moral legitimacy evaluates whether an activity is the "*right thing to do*" by assessing the possible benefits of the action to societal welfare based on a socially constructed value system (Suchman, 1995). Subtypes of moral legitimacy as defined by Suchman (1995) are:

- Consequential legitimacy, which judges organizations based on their accomplishments.
- Procedural legitimacy, which judges organizations based on their techniques and procedures.

- Structural legitimacy, which judges organizations based on their structural characteristics. For example, informants can legitimize an agency's actions because this agency is well experienced.
- Personal legitimacy, which *"rests on the charisma of individual organizations leaders."*

(3) Cognitive legitimacy considers "*what is understandable*" unlike pragmatic and moral legitimacies that rely on "*what is desirable.*" Cognitive legitimacy is based on taken-for-granted cultural and personal accounts (Suchman, 1995). Subtypes of cognitive legitimacy types are (Suchman 1995):

- Comprehensibility, which uses informants' daily experiences and larger beliefs systems to legitimize an action by simply understanding it.
- Taken-for-grantedness, which is used when informants automatically legitimize actions because an alternative is unthinkable for them.

Legitimacy can play a significant role in decision-making processes as it directly influences decision makers (e.g., CEOs, managers), but it also influences other individuals within institutions, who can pressure decision makers. As highlighted by Scott (2013), power is not always a top-down process, and legitimacy within institutions can result in a bottom-up process. According to him, *"[p]ower can arise out of mobilization of subordinate groups as they attempt to advance their own values and interests"* (p. 73). Thus, legitimacy used by individuals within an organization should be included in decision processes when setting organizational goals (e.g., when selecting accommodation types for displaced persons). "*Legitimacy and social norms and values constrain the actions taken by individual organizations"* (Dowling and Pfeffer, 1975), which highlights a need for *"consistency of organizational goals with societal functions"* (Scott, 2013, p.184). Additionally, legitimacy can negatively affect productivity in social collaborations

(Thomas et al., 1986), which are necessary in the process for providing centralized accommodations to displaced persons since (as our data show) numerous entities and changed or expedited processes are frequently involved. The results of this study can potentially aid in decision-making for city planners, utilities and construction companies to ensure effective adaptation of urban housing systems to diverse rapid population influxes. Results may identify the types of emergency housing solutions that are preferred by the stakeholders involved in the accommodation of displaced persons, based on their personal experiences, beliefs and interests. The recognition of the types of emergency housing that will (or will not) be accepted by institutions involved in the process for building or renovating those centralized housing might aid decision-makers in ensuring the efficiency of their accommodation strategies by choosing the most preferred options. Decision-makers may also understand how centralized accommodations are legitimized, and thus know how to justify their choices for a better social acceptance amongst involved institutions.

Chapter 3: Research methods

Data were collected through in-depth ethnographic semi-structured interviews to "*provide complex textual descriptions of how people experience a given research issue*" through the collection of personal histories, experience and perspectives (Mack, 2005). Guidelines set by Spradley (1979) were followed to conduct these ethnographic interviews. Specifically, topics covered during interviews included: the position of the interviewees and their responsibilities; design, construction and renovation of centralized and decentralized housing for displaced persons; the government and other organizations' responses to the refugee crisis; and the collaboration between stakeholders during this period. Most interviews were prepared and conducted by two investigators. Multi-investigators provide strength to this study, since they "*enhance the creative potential of the study [and] the convergence of observations from [them] enhances confidence in the findings"* (Eisenhardt, 1989). This creative potential was also improved by nationality differences amongst investigators (i.e. American and French) whose complementary insights *"add to the richness of the data"* (Eisenhardt, 1989).

Fifty-nine (59) semi-structured interviews were performed in four major German cities during the summer of 2016 within a four-month period, of which 25 are discussed in this study. Participants in this study discussed here (i.e., the 25 selected interviews) were individuals involved in the process for providing long- and short-term centralized housing for displaced persons, including: planners from local governments; architects, companies and non-profits involved in the building or renovation of centralized emergency housing; and non-profits and companies involved in advising urban planners (see **Table 1**). A broad range of individuals were chosen for this study to capture perspectives of persons involved in each step of the process for accommodating displaced persons, spanning multiple types

of involved organizations. Additionally, this multiplicity of perspectives was enhanced by the fact that interviews were conducted in various cities: 11 from City A, two from City B, five from City C, and seven from City D.

Table 1. Number of informants per responsibility and organization type

Organization / Responsibility	Architecture company	Other company	Nonprofit	Government agency	Utility
Advising for accommodations location choice		2	2		1
Urban planning	2			6	
Permitting for selected locations				2	
Design of accommodations	7				
Construction and renovation work		2	1		

Participants were selected using criteria for good informants selection for ethnographic interviews as discussed by Spradley (1979). All interviewees were at least twenty years old and held their current positions for more than six months. A German interpreter was present when needed to overcome language and cultural barriers. Twenty-two (22) out of the 25 interviews were audio recorded (with permission) comprising more than 20 hours of audiotape. Detailed notes were taken during the three interviews that were

not recorded to collect informants' perspectives as clearly as possible. Recordings were then translated to English (as needed) and transcribed.

Interview content was coded for excerpts legitimizing or delegitimizing the actions made by different entities to provide centralized housing to displaced persons during the refugee crisis. Excerpts delegitimizing those actions are parts of the interview content that attribute legitimacy to the choice made by entities not to take those actions. Codes were used to capture interviews' *"primary content and essence"* (Saldaña, 2015, p.4). For example, an architect was asked if he agreed with the decisions made by the city's government to finance the creation of a new centralized accommodation. The informant replied: *"Mostly it's the newest building in this area and it upscales maybe the area."* This excerpt was coded to pragmatic legitimacy since the informant was anticipating the positive effect of the new accommodation on the city, which the informant was part of, to justify the new shelter. More precisely, this excerpt was coded to influence legitimacy since the informant was focusing on benefits provided to a large entity (i.e. the city). Categorizing the excerpts according to the specific legitimacy type per Suchman's typology enables an understanding of the key institutional factors in the studied cities. Interview contents were coded using the software Dedoose, a cross platform tool for qualitative data analysis (SCRC, 2016). Codes for this analysis were defined using a developed coding dictionary by the research team (Singleton and Straits, 1993) in which precise definitions of the types of reasons for (de)legitimizing, and legitimacy types, are provided, with examples (see **Appendix A** for coding dictionary). For example, for this study's purpose, the "*particular set of constituents*" cited by Suchman (1995) in the definition of influence legitimacy was chosen to be informants (i.e. interviewees) or persons in direct contact with them (e.g., their family). This coding dictionary was iteratively refined by researchers (Saldaña, 2015), and verified through interrater reliability

checks to ensure coding replicability (LeBreton and Senter, 2008). A flow chart was also developed to ease the coding process when coding for legitimacy types (see **Appendix B**). Each excerpt coded corresponds to one specific idea or argument developed by informants during interviews. For example, an informant was asked about renovations that were required on centralized accommodations. He replied: *"this is not my responsibility, this is the [government agency's] responsibility."* Two excerpts were coded since the first part delegitimizes the interviewee's involvement while the second part legitimizes the government's involvement.

Weights were attributed to each excerpt based on the intensity of legitimacy used by informants. A scale of 0 to 8 was chosen, where 0 was coded for statements that absolutely attribute legitimacy to the withholding of accommodation for displaced persons or absolutely remove legitimacy from structures that provide accommodation to displaced persons, and (8) was coded for statements that absolutely attribute legitimacy to the provision of accommodation for displaced persons or absolutely remove legitimacy from structures that withhold accommodation to displaced persons. Four (4) would indicate statements that neither provide nor remove legitimacy from the organization. Other numbers were coded for intermediate levels of legitimacy (see **Appendix A** section A.7).

After the legitimacy coding, coded excerpts were categorized according to: (1) reasons for (de)legitimizing the provision of accommodations for displaced persons (e.g., regulations, long-term integration, livability, overall population growth, other persons' perspectives); (2) stakeholders who should/should not be involved (e.g., informants themselves, local or national government, utilities); and (3) types of accommodations specifically legitimized. Those categories emerged from the interview data.

Limitations to this study include the choice for locations and informants, and the investigations' timeframe. Investigations were all performed in Germany. The results of

this study can thus provide indications about developed countries' institutional response to sudden international population influxes; however, those indications may not be applicable to all developed countries, as institutional responses greatly varies between countries because of cultural differences as shown by Hofstede (1984). Informants in this study were employed in various types of organizations with different types of responsibilities. Those diverse informants' perspectives were combined to obtain results, and this analysis does not present comparative information about how specific types of institutions (e.g., nonprofits, companies) reacted. Finally, the timeframe of this study can be a limitation to the applicability of its results. Interviews were all conducted during the summer of 2016 at the end of a high influx of displaced persons observed by Germany, after several controversial events linked to displaced persons, and a few months prior to state elections. Those circumstances might have affected institutional responses to the studied population influx, which are expected to be dynamic.

Chapter 4: Results and discussion

In the case of this study, legitimacy was explicitly or implicitly used by informants to legitimize the provision of centralized accommodations for displaced persons by justifying different entities' actions to provide accommodations or accusing entities that do not provide accommodations. Legitimacy was also explicitly or implicitly used by informants to delegitimize the provision of centralized accommodations to displaced persons by justifying entities' actions to not provide accommodations or accusing entities that do provide accommodations. Those entities that were (de)legitimized include, local or national government agencies, the German people, local communities, nonprofits, companies, individual stakeholders, displaced persons, informants themselves, and an entity formed by all stakeholders. For instance, an informant said, "*I think thanks to [centralized accommodations] we won't have the situation next winter that people have to freeze outside."* In this case, the informant was legitimizing the actions of all stakeholders who worked towards the provision of centralized accommodations for displaced persons.

4.1. Overview of the accommodation process

When asylum seekers arrive in Germany and report to a state authority to begin their asylum procedure, they are first received in the closest *initial reception facility* in the state where they register (BAMF, 2017). These reception facilities are usually *centralized accommodations* that host between 50 and 1,500 persons. Asylum seekers are accommodated in shared rooms, receive three meals a day, and have access to social services. Some asylum seekers remain in these accommodations throughout the duration of their asylum procedure, while others are transferred to a different initial reception facility. Transfers to other accommodations in Germany are determined using a quota system for fair distribution that is *"calculated on an annual basis by the Federation-*

[states] Commission, and determines what share of asylum-seekers are received by each Federal Land" (BAMF, 2017). However, during the refugee crisis in 2015, many asylum seekers were not distributed based on this quota, given the emergency situation and overwhelming number of displaced persons. After three to six months in initial reception centers, the government aims to transition asylum seekers into *collective accommodations* where living standards are higher (e.g., with private rooms) (Housing - Berlin.de, 2017). Nonetheless, during the refugee crisis in 2015 and 2016, a portion of the asylum seekers remained in initial reception centers longer than six months as most *collective accommodations* had reached maximum capacity.

Asylum seekers are required by law to stay in their attributed *initial reception facilities* for a minimum of three months, after which they are allowed to move into private apartments. However, housing shortages in major cities and the inability for most asylum seekers to work poses challenges for finding private apartments. Refugees who are granted asylum also face this problem partly due to the difficulty in finding jobs for reasons such as language issues or non-recognition of their diplomas. Capturing this challenge, an informant responsible for managing and renting properties said, *"[i]f there's a German and there's a refugee [applying for an apartment], the German will always get the apartment. That's just the way it is, and it's hard that it is that way."* As a result, asylum seekers (and refugees) tend to remain in centralized accommodations throughout the entirety of the asylum procedure and often post being granted asylum.

Initial reception facilities and collective accommodations span various types of buildings owned or rented by the government. These facilities/accommodations include buildings that were entirely or partly renovated, such as former office buildings, schools, or factories. Facilities/accommodations also include buildings that were specifically built to host displaced persons such as light-frame buildings (e.g., tents, inflatable domes),

container housing (assembled container units), and modular housing made of standard construction units (e.g., standard wall surfaces). In addition to the initial reception facilities and collective accommodations, *emergency accommodations* were implemented in response to the sudden influx of displaced persons in 2015 (Housing - Berlin.de, 2017). Those emergency accommodations are were originally set up by the government as short-term solutions (e.g., a few months) to prevent displaced persons from being homeless in Germany. The emergency accommodations include sport halls, former schools, airports, tents, container housing, and office buildings, where only minor renovations were undertaken prior to hosting displaced persons. Minor renovations were usually related to safety requirements and were completed within a few days. While some emergency accommodations were temporary, such as sport halls that needed to be recommissioned for local schools, many were further renovated to serve as initial reception facilities or collective accommodations long-term. There was no clear technical delineation between *emergency accommodations* and other centralized accommodations for displaced persons. For example, container housing is considered by some government agencies as short-term solutions (e.g., three months) while other agencies would consider them as long-term solutions (e.g., five or more years).

Government agencies at the state and city level were responsible for the provision of accommodations for displaced persons. When identifying locations (e.g., existing buildings or empty land), government agencies may be advised by different organizations (e.g., chambers of architects), as well as may collaborate with private companies. After identifying feasible locations, architects and companies were contracted by the government agencies to renovate, design, or construct buildings. Following this, nonprofits and companies were contracted to manage those accommodations and provide daily services

to displaced persons, while the maintenance work was contracted (and monitored) by government agencies.

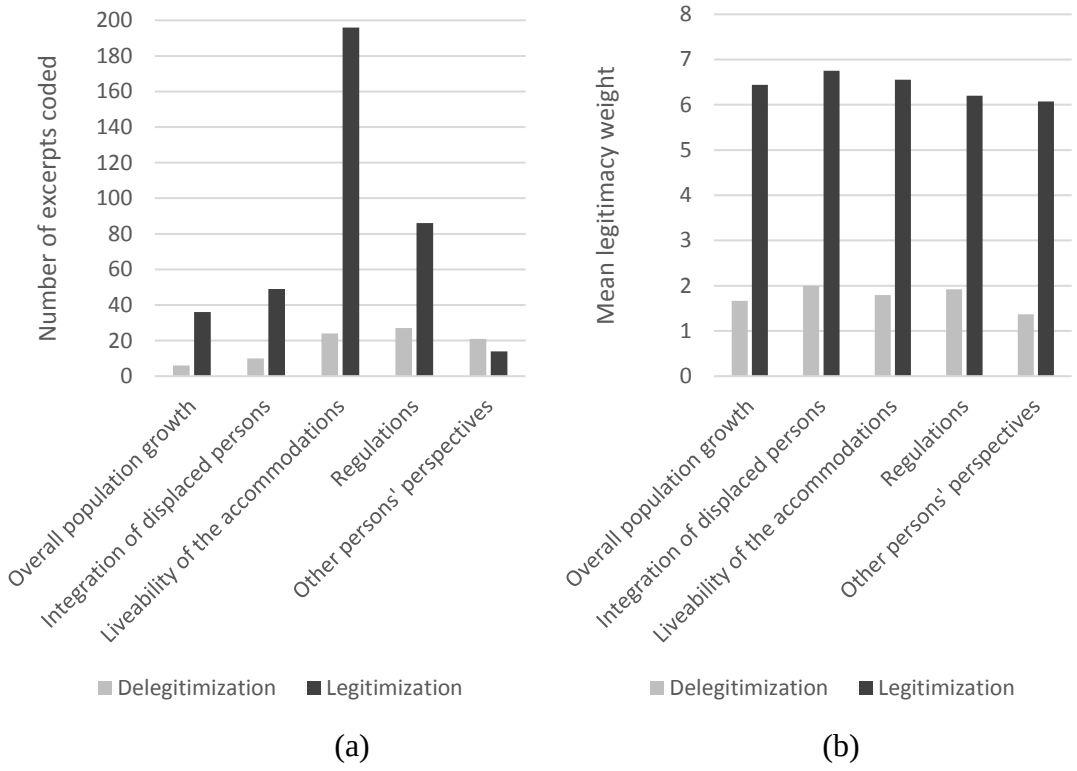
This timeframe for the provision of housing for displaced persons reduced in 2015 due to the sudden influx of displaced persons. Measures to reduce the timeframe included reducing several permitting processes and removing the requirement for architecture competitions to select agencies responsible for the design of accommodations. The government's reaction was perceived heterogeneously by informants; 7 out of the 25 informants thought its reactions to the high influx of displaced persons in 2015 was too slow, 7 informants believed the government responded quickly, 5 informants thought those reactions were neither slow nor fast but right, and the 6 remaining informants did not comment on this. For example, a nonprofit worker stated, when discussing a sudden decision made by a government agency to close an accommodation with too poor living conditions, *"[the government agency] had the urgent meeting about that. Actually, everyone knew this like half a year before, so therefore I never understand why they always decide overnight."* On the contrary, another informant said, *"I think that now the reaction to the increase of number of refugees was quite quick. It was necessary to talk about fast and broad answer to this new situation."*

4.2. STAKEHOLDER (DE)LEGITIMIZATION OF PROVIDING CENTRALIZED ACCOMMODATIONS TO DISPLACED PERSONS

Interviewed stakeholders in this study both legitimized and delegitimized different actions taken to provide centralized accommodations to displaced persons during the refugee crisis in 2015 and 2016. They directly cited reasons they thought were relevant to justify their perspectives about centralized accommodations, and also used different types of legitimacy. Legitimacy was used by informants intentionally when the use of legitimacy

was part of their argument (e.g., by emphasizing that an action is the right thing to do), but also not intentionally when only expressing their opinion.

Figure 1(a) shows the frequency at which different reasons were explicitly mentioned by informants to legitimize and delegitimize the actions taken to provide centralized accommodations to displaced persons. **Figure 1(b)** shows the corresponding mean weights. A total of 381 excerpts coded legitimizing actions and 88 excerpts coded delegitimizing actions.



(a) (b)

Figure 1. Factors (de)legitimizing the provision of centralized accommodations for displaced persons: (a) Frequency and (b) Average Weight

Fifty-one percent (51%) of the coded excerpts that legitimize the provision of housing corresponds to a willingness to improve the livability (living conditions) of accommodations, locally and at the country level. The livability of accommodations

includes overall condition, available space per person, privacy, and safety (e.g., fire safety) within those accommodations. For example, 24 out of the 25 informants discussed the poor livability of select existing accommodations, such as lack of privacy, to highlight a need for renovations or a need for new accommodations. Notably, the livability of accommodations also comprised 27% of coded excerpts delegitimizing the provision of housing. This is partly due to 7 informants delegitimizing the construction of new collective accommodations by emphasizing the need for more immediate actions to prevent displaced persons from being homeless. These informants discussed that planned collective accommodations would be set up after several months while emergency solutions should be found within a few days.

Regulations (23% of the coded excerpts) were the second most recurrent reason for legitimizing the provision of housing. Informants typically referred to existing federal and state requirements for minimum living standards in displaced persons accommodations (e.g., Bürgerservice, 2017), and regulations citing organizations (e.g., utilities, government agencies) responsible for different steps of the accommodation process. Interestingly, the existence of regulations was the most recurrent reason cited to delegitimize the provision of housing (31% of coded excerpts).

Other persons' perspectives (other than the informant) were more frequently mentioned to delegitimize the provision of housing than to legitimize it. The corresponding mean weight for delegitimization of the provision of centralized accommodations is 1.37, the lowest weight among delegitimization reasons. This result indicates that informants primarily used other persons' perspectives to strongly delegitimize the process for accommodating displaced persons. On the contrary, the mean weight corresponding to the use of other persons' perspectives to legitimize the process is low when compared to other reasons identified in coding.

The integration of displaced persons represents only 13% of the excerpts to legitimize the provision of housing, but has a corresponding weight (6.75) that is high when compared with other legitimization reasons. This low frequency-high weight response indicates that informants were strongly convinced of the benefits of the provision of adequate centralized accommodations to displaced persons for integration into the city. One informant discussed that the way centralized accommodations are distributed throughout the city is directly linked to successful integration of displaced persons. *"This can also be an issue if the refugees are in the neighborhoods far from the city center because I think in the city center is very good, this is very easy to integrate the people."*

Finally, since the cities in which the study was conducted were growing cities, the overall population growth was also discussed by informants, and primarily used to legitimize the provision of housing. Indeed, ten informants included the population growth related to displaced persons to the overall population growth of the city, and highlighted that new accommodations were needed, regardless of the refugee crisis.

In total, 902 excerpts were coded legitimizing the provision of accommodations for displaced persons, while 194 excerpts delegitimized accommodations. Amongst legitimizing excerpts, 35% were coded for pragmatic legitimacy, 48% for moral legitimacy, and 17% for cognitive legitimacy. Amongst delegitimizing excerpts, 53% were coded for pragmatic legitimacy, 23% for moral legitimacy, and 24% for cognitive legitimacy.

The results suggest that informants were more likely to use a normative evaluation (i.e. moral legitimacy) of stakeholders' actions to legitimize the provision of centralized accommodations than to delegitimize it. Otherwise stated, informants held a conviction that "the right thing to do" was to accommodate displaced persons as opposed to not providing accommodations. The results also indicate that informants primarily

delegitimized the process based on self-interested calculations (i.e. pragmatic legitimacy). Those self-interested calculations can rely on direct benefits to informants (e.g., a job opportunity, their salary) but also on indirect benefits (e.g., benefits to the city).

Figure 2(a) illustrates the frequencies at which informants used the nine subtypes of legitimacy to (de)legitimize the provision of centralized accommodations to displaced persons. **Figure 2(b)** shows the corresponding mean weights. The most frequent legitimacy subtypes used by informants are exchange, influence, consequential, and procedural legitimacy, accounting for approximately 18% of excerpts. As indicated in **Figure 2(b),** there is no significant difference in mean weights between each legitimacy subtype (falling within the range of 6.17 and 6.41), with the exception of influence and consequential legitimacy, which have corresponding mean weights of respectively 6.56 and 6.65.

Exchange legitimacy was primarily used when discussing regulations (65%) or employment contracts (25%) to legitimize the stakeholders' involvements (e.g., their own involvement justified by their own employment contract). For example, in reference to regulations, a nonprofit worker legitimized the involvement of his organization by saying, *"...from time to time there are standards guaranteed by the law for social housings. And after the five years there are checks and if something does not work we have to repair it of course, or renew it […], there is also a standard towards which we are supposed to tend".*

Influence legitimacy was primarily used when informants were focusing on benefits provided to the city by the provision of centralized accommodations for displaced persons. Thirty-five percent (35%) of coded influence legitimacy excerpts legitimizing the process were related to the livability of accommodations. Seven informants stated that a good livability of accommodations would benefit the neighborhood in which they are located by enhancing the livability of the entire neighborhood (e.g., higher safety, less noise disturbance). One architect said, *"I still kept communicating with neighbors who were*

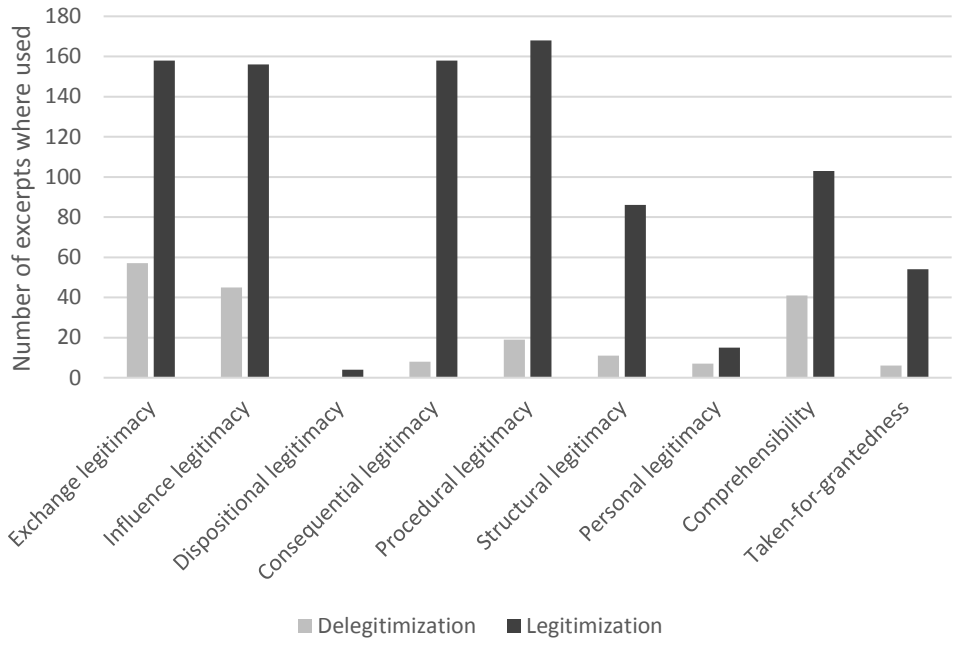
complaining about the noise of these heating systems and I tried to get the [city] to do something about that. […] I want to do something on the outside, some graphics on the pavement." Additionally, 28% of coded influence legitimacy reasons were linked to the overall population growth of the cities where interviews were conducted. Informants viewed the process for providing accommodations to displaced persons as a good opportunity to meet future housing demands. Exemplifying this, one informant stated, *"I know that some shelters that are now being planned as asylum shelters are designed to be turned into a hotel afterwards with little extra work. So, like I said, should the number go down, that wouldn't be so much of a problem. We also need hotels."*

Consequential and *procedural legitimacies* were primarily used when informants were assessing the livability of centralized accommodations. Seventy-seven percent (77%) and 51% of coded consequential and procedural legitimacy excerpts, respectively, were related to livability. When using consequential legitimacy, informants thought that "the right thing to do" was to provide accommodations with good living standards to displaced persons and focused on benefits provided to displaced persons. One informant justified her involvement by describing emergency accommodations that her agency wanted to replace, and said, *"[f]or the refugees, it is horror. You have zero privacy, they are completely mixed. So we wanted […] to let the people move into the [modular buildings]."* On the contrary, when using procedural legitimacy, informants thought that "the right thing to do" was to do their best and follow procedures that they thought were applicable, independently from the results of those procedures. For example, three informants justified select actions by highlighting that those actions were "*how they do it in Germany.*" Similarly, an informant legitimized his agency's decision to improve fire safety in some accommodations by saying, "*[f]ire protection is a big thing for us in [our city]. That was really important for*

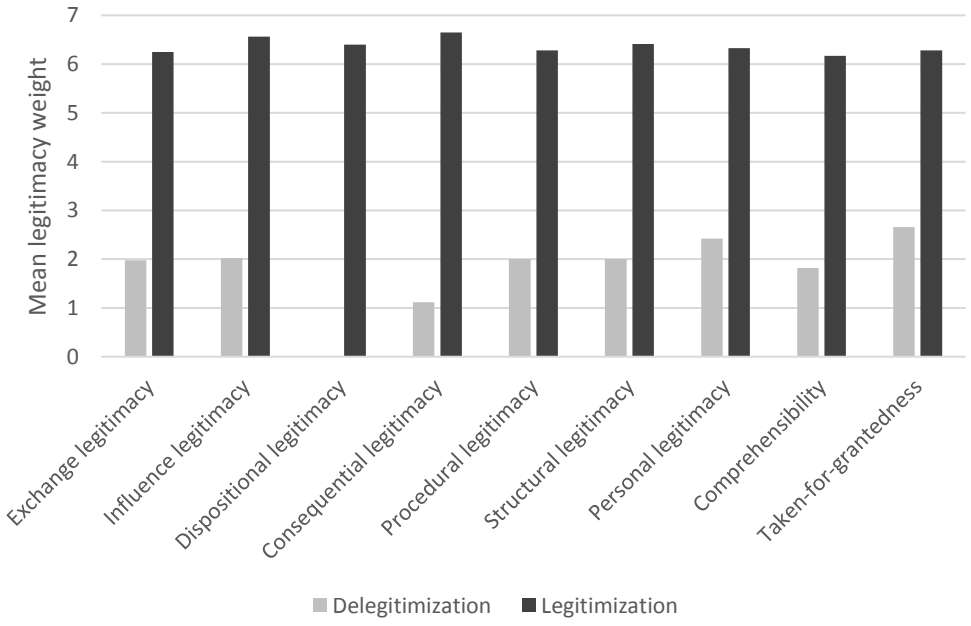
us." The informant was thus focusing on the procedure that she thought was appropriate (since in adequacy with her city's values) rather than on its outcome.

As shown in **Figure 2(a)**, the most frequent types of legitimacy used by informants to delegitimize the process for providing centralized accommodations to displaced persons are exchange legitimacy, influence legitimacy, and comprehensibility, comprising 73% of the excerpts delegitimizing the process. This indicates that informants primarily delegitimized the process by emphasizing that the provision of housing does not serve their own interests or their larger interests (e.g., the city's interests), and stating that they (the informants) understand decisions made by some stakeholders to not take actions to provide accommodations. The mean weights corresponding to those three types of legitimacy are approximately 2, demonstrating that informants used these three types with similar intensity.

Exchange legitimacy is the most frequent legitimacy type used by informants to delegitimize the process (see **Figure 2(a)**), which was primarily used by informants to justify that they were personally not involved in some steps of the process. Informants primarily justified their lack of involvement based on regulations and responsibilities set by their employment contract, manager, etc. A majority (69%) of coded excerpts delegitimizing the process while using exchange legitimacy are related to regulations. For example, one informant justified the fact that her agency abandoned a new accommodation project by referring to regulations. *"The law says [endangered species] have to be protected. It says that if you build in the outskirts, you are interfering with nature and the landscape."*



(a)



(b)

Figure 2**.** Legitimacy subtypes used to (de)legitimize the provision of centralized accommodations for displaced persons: (a) Frequency and (b) Mean weight

Influence legitimacy was the second most frequent legitimacy type used to delegitimize the process, primarily used by informants when expressing concern about disadvantages associated with their city, specific neighborhoods, Germany, or different communities. Informants focused, for example, on the fact that providing centralized accommodations to displaced persons is in some cases too costly, challenging, or disturbing for the neighborhood.

Comprehensibility is the third most frequent legitimacy type used to delegitimize the process, used by informants when discussing why actions were not taken to provide centralized accommodations to displaced persons. Ten informants emphasized that some actions were impossible to take (e.g., renting accommodations in a city where there is a severe housing shortage), and ten informants explained that some actions were better not to take (e.g., taking cultural differences into account when designing facilities), based on their experience. For instance, an informant delegitimized the construction of new accommodations by saying*, "no, no, no, we don't have time"*.

4.3. PREFERRED TYPES OF CENTRALIZED ACCOMMODATION

Table 2 summarizes characteristics of the different types of accommodations used as centralized accommodations for displaced persons in Germany discussed by informants, including informants' perspectives about accommodation types, how informants (de)legitimized the process for providing each type, select justifications stated by informants, and the frequency which informants described the accommodation types as long- and short-term accommodations. To ensure consistency, clear definitions for short- and long-term accommodations were used. Excerpts where informants were assuming that displaced persons could live for an indefinite period of time in the discussed centralized accommodations were coded for long-term. Excerpts where informants were assuming that

displaced persons could not live for an indefinite period of time in were coded for short-term. The eight accommodation types categorized in this study were classified into five groups by the type of (de)legitimization used by stakeholders: (1) sport halls, which have a high ratio of delegitimizing to legitimizing excerpts (100%) compared to other types; (2) former airports and light-frame structures that were primarily legitimized with exchange legitimacy and have an intermediate delegitimizing to legitimizing excerpts ratio (26% and 25%); (3) buildings with no major renovations (excluding sport halls and airports) and container housing, which were primarily legitimized with *procedural legitimacy* and have an intermediate delegitimizing to legitimizing excerpts ratio (25% and 19%); (4) modular housing and buildings with major renovations, which were primarily legitimized with consequential, influence and exchange legitimacy, and have a low delegitimizing to legitimizing excerpts ratio (6% and 11%); and (5) private apartments within centralized accommodations, which were primarily legitimized with exchange and influence legitimacy, and have a low delegitimizing to legitimizing excerpts ratio (14%), and which were considered long-term accommodations.

Sport halls were the least preferred accommodation type due to the poor perceived livability, and because of anticipated negative impacts on the hosting city. Modular housing and renovated buildings were the preferred accommodation types due to perceived benefits for displaced persons, informants, and the hosting German cities. Former airports and light-frame structure were perceived as an acceptable option for very short-term accommodation but informants were not deeply convinced by their long-term benefits for German cities. Using buildings with no major renovations and container housing were recognized by informants as legitimate attempts to provide adequate accommodations to displaced persons but informants were not convinced about the success of those attempts. Finally,

private apartments within centralized housing were considered a beneficial solution for German cities in the long-term.

Table 2 indicates that sports halls, former airports and container housing were primarily legitimized by informants involved in the urban planning process (including informants who had an advising role only). Light-frame structures, modular housing and buildings with major renovations were primarily legitimized by informants involved in the design of centralized accommodations for displaced persons. Finally, buildings with no major renovations (excluding sport halls and airports) were primarily legitimized by informants involved in the construction and renovation of centralized accommodations. This is mainly due to the fact that informants mainly discussed projects they were working on.

Sport halls were used during the influx of displaced persons at the end of 2015 and at the beginning of 2016 as emergency accommodations. No major renovations were undertaken before displaced persons' arrival as they were intended to be used temporarily for a few months prior to being returned to German schools. Large sports fields were used as common rooms where beds were placed. Many excerpts both legitimized and delegitimized using sport halls. However, sports halls have a high ratio of delegitimizing to legitimizing excerpts (100%) compared to other types, which all have a ratio of delegitimizing to legitimizing excerpts of less than 26%. The mean weight for excerpts legitimizing sport halls is low (5.90) when compared to all other accommodation types. The delegitimization of sport halls was primarily based on two justifications. First, all informants who discussed sport halls perceived poor livability, and described this accommodation type as a very short-term solution. One informant stated, *"[a] sport hall is not a shelter where you can stay for a long time normally. It is very hard for the refugees there."* Second, two informants emphasized that this accommodation type was hindering

the capacity of the schools in the city to operate normally, and that further renovations were needed after closing those emergency accommodations, at the city's expense. Exemplifying this, one informant stated, *"[t]here have been changes or adaptions made now during the last month while the refugee camp was in the hall. Now when one hall is closed, everything has to be rebuilt."*

Table 2. (De)legitimization of Accommodation Types by Informants

Type	**Frequency/ Mean Weight of excerpts delegitimizing (legitimizing) accomm-odation type**	**Predominant legitimacy subtype for legitimizing accomm-odation type**	**Step of the process when the accommodation type was primarily legitimized (%)**	**Frequency of excerpts describing short-term solution (long-term solution)**	**Select stakeholder justifications**
Sport halls	14/1.92 (14/5.90)	No predominant type	Urban planning (50%)	22 (0)	No privacy Bad livability
Former airports	11/1.9 (42/6.34)	Exchange (31%) Consequential (24%)	Urban planning (95%)	26 (9)	Expensive Unnecessary
Light-frame structures	17/2.19 (68/6.36)	Exchange (26%) Influence (21%) Consequential (15%)	Design of accommodations (60%)	46 (2)	Expensive Unnecessary
Buildings with no major renovations, excluding sport halls and airports	11/2.2 (44/6.65)	Procedural (32%)	Construction and renovation work (77%)	38 (3)	Livability
Container housing	13/2.0 (37/6.06)	Procedural (27%)	Advising (38%) Urban planning (32%)	21 (4)	Expensive Livability Unnecessary
Modular housing	4/1.75 (68/6.43)	Consequential (25%) Exchange (21%) Influence (18%)	Design of accommodations (69%)	19 (5)	Possibly used by students Cannot be used by Germans
Buildings with major renovations	10/2.0 (91/6.37)	Consequential (25%) Exchange (22%) Influence (22%)	Design of accommodations (45%)	20 (10)	Livability
Private apartments in centralized housing	5/2.5 (35/6.49)	Exchange (29%) Influence (23%)	Construction and renovation work (76%)	1 (9)	Livability

A former airport was used to accommodate displaced persons. This airport was a large, empty building that was partly being renovated to house displaced persons. Separately, the light-frame structures used as centralized accommodations were primarily inflatable domes and large tents. The most recurring legitimacy type used by informants to legitimize the former airport and light-frame structures is exchange legitimacy. This result is primarily due to four informants who were responsible for providing those types of accommodations but were not convinced about their long-term advantages. For example, those accommodation types were perceived as costly and unnecessary by three informants. An informant said, about hangars in the former airport, *"I can't understand why we take the hangars for living, because it's very, very, very expensive."* Consequential legitimacy was also frequently used to legitimize airports (24%) and light-frame structures (14%). This result can primarily be explained by the fact that four informants stated that those accommodations are short-term solutions needed to prevent displaced persons from being homeless. *"[Tents] were absolutely just for the emergency situation, you can only do that when a lot of people come and they should at least have a place where they don't freeze."*

Buildings, such as former schools, office buildings and factories, were used as *emergency accommodations* without being renovated (except for minor renovations, such as painting) prior to the arrival of displaced persons. Container housing were newly built in different locations of the cities to serve as *emergency accommodations* or *collective accommodations*. The predominant legitimacy type used to legitimize buildings with no major renovations and container housing is procedural legitimacy. This result indicates that informants primarily legitimized those two accommodation types by emphasizing that setting up those accommodations corresponds to the right procedure to follow, even though outcomes are not necessarily positive. In this case, informants supported the willingness of decision makers to act to accommodate displaced persons but were not convinced about

the outcomes of those actions. For example, an informant supported a city's actions to create new container housing with good living standards, but was not satisfied by the outcome. He said, *"I cannot imagine who wants to live there, because they are outside the cities normally, have no connection to the infrastructure… There are nice complexes, good examples done by the city […], but I don't think that they will be used after, after these refugees using them."* Overall, informants had mixed appreciations of buildings with no major renovations and container housing. Those mixed appreciations provide a good indicator that informants had troubles evaluating the effects of the provision of container housing and buildings with no major renovations, and legitimized related procedures rather than their outcomes.

Modular housing and buildings where major renovations (e.g., construction of kitchens and bathrooms) had been undertaken were (during the period of time when interviews were conducted for this study) intended to serve as collective accommodations. These two accommodation types have a low delegitimizing to legitimizing excerpts ratio (respectively 6% and 11%) as compared to the other accommodation types. Modular housing and buildings with major renovations were primarily legitimized with consequential, exchange, and influence legitimacy. Exchange legitimacy was most frequently used by informants to justify their involvement by citing regulations and their responsibilities set by their employment contract, manager, etc. Consequential legitimacy was most frequently used when informants were highlighting that modular housing and buildings with major renovations were the centralized accommodations types that provide the best livability. For example, an informant compared the livability of a building that received major renovations to that of emergency accommodations such as sport halls by saying, *"[n]ow we are done with the renovations, those housings are regular now, these are more secure shelters. We have now a room for 2 persons, not for 6 persons [laughs]."*

Influence legitimacy was also frequently used (32 excerpts) to legitimize modular housing and buildings with major renovations. Most informants who discussed those accommodation types considered that they were good opportunities to meet the demand for affordable housing arising from population growth within the cities where interviews were conducted. One architect said, "*the idea is that those [modular] buildings, whenever the refugees can come back to their home countries, are used for normal families or students.*"

Private apartments for displaced persons in centralized accommodations is a particular type of collective accommodations (e.g., modular housing, container housing). Private apartments are the only centralized accommodation type that was primarily described by informants as long-term solutions. Informants mostly legitimized private apartments with exchange and influence legitimacy, demonstrating that informants considered that providing private apartments to displaced persons was beneficial to them (the informants) both directly and indirectly (e.g., through the city's interest). Six informants stated that providing private apartments to displaced persons was the most beneficial centralized accommodation option because: (1) those apartments could be later used by German people, and (2) this accommodation type was a good way to enhance the integration of displaced persons.

Chapter 5: Conclusion

Rapid migration is a worldwide phenomenon that has been increasing over the last two years (UNHCR 2016), due to political instabilities and natural disasters which are more and more frequent. Little research was performed about the effects of these unprecedented, yet current, population dynamics on urban systems due to the ephemeral characteristics of the associated data. Existing research related to accommodation of internationally displaced persons in developed countries mainly focus on decentralized accommodations and do not assess emergency centralized accommodations. This study is seeking to address this gap by assessing the institutional response of stakeholders involved in the provision of centralized accommodations to displaced persons in Germany during the high influx of displaced persons that occurred at the end of 2015 and at the beginning of 2016. The institutional response of stakeholders is crucial for the efficiency of measures taken by decision-makers. Existing research (e.g., Thomas et al., 1986)) shows that individual perspectives within institutions can affect the efficiency of social collaborations, even when specific tasks are set. Thus, gaining and maintaining legitimacy amongst individuals within institutions involved in the process of provision of centralized accommodations to displaced persons may aid in the efficiency of the this process. In the context of high influx of international populations, decisions made to either accommodate or not accommodate displaced persons are usually controversial, and gaining and maintaining legitimacy of those decisions can be arduous.

Qualitative analysis of interview content was used to holistically understand institutional responses to sudden influxes of displaced persons in Germany at the end of 2015 and beginning of 2016. Twenty-five (25) semi-structured interviews were conducted

and analyzed to capture stakeholders' perspectives and thus obtain a good understanding of the way individuals legitimize and delegitimize different stakeholders' actions to provide centralized accommodations to displaced persons.

The results of this study indicate that a good livability of the accommodations provided to displaced persons was by far the most frequently mentioned by informants as the reason why actions should be taken to participate in the process for providing centralized accommodations to displaced persons. On the other hand, regulations were primarily cited by informants to justify the fact that some stakeholders are not involved in the process. Additionally, the legitimacy types used by informants to legitimize the process for providing centralized accommodations for displaced persons are primarily moral, while the legitimacy types used to delegitimize this process are primarily pragmatic. This indicates that justifications both explicitly cited and implicitly used (i.e., legitimacy types) by stakeholders for legitimizing the process for providing accommodations differ from justifications used to delegitimize this process. The legitimization of this process was mostly based on individual convictions while the delegitimization of this process was mainly based on self-interested calculations. This indicates that for example a good communication strategy, when describing to stakeholders decisions made to provide centralized accommodations to displaced persons, would be to emphasize (1) the possible benefits to displaced persons (to gain consequential legitimacy) and (2) that the way that actions are taken are proper (to gain procedural legitimacy). Results also indicate that for example a good communication strategy, when describing to stakeholders decisions made to not provide centralized accommodations to displaced persons, would be to emphasize (1) the direct benefits that stakeholders would receive (to gain exchange legitimacy) and (2) the benefits provided to the city and the country (to gain influence legitimacy).

The results of this study also indicate that the different accommodation types used in Germany as centralized accommodations for displaced persons were not legitimized equally and that select accommodation types were preferred. Sport halls were the least preferred option while modular housing and renovated buildings were the most preferred options. Light-frame structures and former airports were mainly accepted for self-interested purposes while container housing and buildings with no major renovations were accepted because those accommodation types were perceived as a fair but not fully efficient attempt to accommodate displaced persons. Those results could help decision makers choose accommodation types based on stakeholder's preferences to gain legitimacy and thus obtain a more efficient institutional response to sudden influxes of displaced persons.

Appendix A. Coding dictionary

A.1. Project overview

Project Goal: To understand the various forms of legitimacy used to advocate for or against providing accommodation to refugees in an urban setting. Accommodation includes housing, social services and other infrastructure relating to the built environment (i.e. water services, utilities, transportation, etc.).

Method: Coordinated interviews with various stakeholders related to providing housing accommodations to refugees and water services, including: utility companies, government agencies, public companies, private companies and nonprofit organizations.

A.2. Coding objective

Identify statements from interviewees that correlate legitimacy the provision (or lack thereof) of infrastructure within the built environment of their specific city and Germany as a whole for the incoming refugee population.

A.3. Legitimacy definition

"Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions." (Suchman 1995)

A.4. How to use this document

Simplified Method of Analysis:

1. Record interview.
2. Transcribe audio recordings.

3. Translate transcriptions to English (if necessary).
4. Upload to Dedoose software in corresponding project file.
5. Identify statements that correlate to expressing legitimacy (pragmatic, moral, cognitive).
6. Code the statement to a specific type of legitimacy.
7. Weight specific type of legitimacy.
8. Attribute a topical category to type of legitimacy in selected statement.

A.5. TYPES OF LEGITIMACY DEFINITIONS

Table A1. Legitimacy definitions- Type of Legitimacy

Types of Legitimacy	**Definition**
Pragmatic	Pragmatic legitimacy relies on self-interested calculations of the most immediate audiences of the organization that is being legitimized. Pragmatic legitimacy usually rests on direct interactions between audience and organization, but can also rest on "*broader political, economic or social interdependencies*" (Suchman, 1995). In this study, the audience is the interviewee and this considers any direct impact from the interaction the individual is describing. Key phrases: • I receive... • We get...

Table A1. continued

	• The regulations specify I/we have to
Moral	Moral legitimacy evaluates whether an activity is the "*right thing to do*" by assessing the possible benefits of the action to societal welfare based on a socially constructed value system (Suchman, 1995). *Looks at whether or not it is the "right thing to do" rather than the pragmatic definition of receiving something.*[1] *(pg. 579)* Key phrases: • This is fair/ This is not fair • This is/is not the right thing to do
Cognitive	Cognitive legitimacy considers "*what is understandable*" unlike pragmatic and moral legitimacies that rely on "*what is desirable.*" Cognitive legitimacy is based on taken-for-granted cultural and personal accounts (Suchman, 1995). This is a comprehension, or lack thereof, based on personal experience or "how things are done." In contrast to moral legitimacy, cognitive legitimacy acknowledges unspoken cultural standard. Key phrases: • Definitely/absolutely • Of course. • It is what it is

Table A2. Legitimacy definitions- Specific Types of Legitimacy

Specific Types of Legitimacy		**Definition**	**Hypothetical Example** *The hypothetical example is assumed to be a conversation with a social worker living in a neighborhood where a refugee housing is planned*
Pragmatic Legitimacy	Exchange legitimacy	Exchange legitimacy is the simplest level of pragmatic legitimacy and represents a support for an organizational policy based on that policy's expected value to a particular set of constituents.(Suchman, 1995) Benefits are provided to the interviewee or persons/ a group of	The planned local refugee housing accommodation is perceived as legitimate because the interviewee sees it as a future job opportunity.

Table A.2. continued

		persons/ a group of persons that the interviewee is in direct contact with (e.g., interviewee's family, neighbors, etc) Key phrases: • I receive... • We get... • The regulations specify we/I have to…	
	Influence legitimacy	*Constituents support the organization not necessarily because they believe that it provides specific favorable exchanges, but rather because they see it as being responsive to their largest interests* (Suchman, 1995)	The planned local refugee housing accommodation is perceived as legitimate because it would help the city become more multicultural.

Table A.2. continued

		Benefits are provided to persons/ a group of persons that the interviewee is NOT in direct contact with (can be city as a whole, the government, etc) Key phrases: • Our city would receive… • Germany would receive…	
	Dispositional legitimacy	Dispositional legitimacy is used when informants *"react as though organizations were individuals",* and legitimize their actions with dispositional attributions (e.g., organizations are	The planned local refugee housing accommodation is perceived as legitimate because the local government is trustworthy and knows what it is doing.

Table A.2. continued

		trustworthy, wise) (Suchman ,1995). Usually the organizations which are granted legitimacy are personified and have "the interviewee/the society's interests at heart". I a sense, organizations are personified.	
Moral Legitimacy	Consequential legitimacy	Consequential legitimacy judges organizations based on their accomplishments (Suchma,n 1995). This specific type of legitimacy answers the question: What benefits are provided to others? Key phrases: • We should provide • We should give	The planned local refugee housing accommodation is perceived as legitimate because refugees should have a safe place to live.

Table A.2. continued

		• They should get	
	Procedural legitimacy	Procedural legitimacy is involved when the legitimized organization is considered embracing socially accepted techniques and procedures (significant when missing measures of outcome). This looks at how the organization functions or the procedures. In contrast to consequential legitimacy, this focuses on HOW the services are provided rather than	The planned local refugee housing accommodation is perceived as legitimate because the local government should do everything they can to accommodate refugees.

Table A.2. continued

		WHAT services are provided. Key phrases: • This is the way we have been told… • We should do our best • We/they should try (emphasis on "try" to indicate it's a more about attempting to provide something rather than the outcome itself)	
	Structural legitimacy	Structural legitimacy is based off of the structural framework in place at the organization. For example schools can show they are right for the job by showing their traits as "modern school".	The planned local refugee housing accommodation is perceived as legitimate because the local government is a large institution.

Table A.2. continued

		Key phrases: • This is the requirement… • We are/aren't allowed to…	
	Personal legitimacy	Personal legitimacy *"rests on the charisma of individual organizations leaders"* (Suchman, 1995).	The planned local refugee housing accommodation is perceived as legitimate because the mayor of the city is sensible.
Cognitive Legitimacy	Comprehensibility	Comprehensibility is based on both daily experience of the audience and the larger belief systems (cognitive chaos). The person definitively expresses their viewpoint in parallel with an example as to why. The	The planned local refugee housing accommodation is perceived as legitimate because a similar project happened two years ago and it went well.

Table A.2. continued

		key factor is that their initial reaction is an absolute. They know for a fact because of personal experience (Suchman, 1995). Key phrases: • Absolutely... • It's easy to/ it's not easy to • I noticed that it's working/ not working • In my experience...	
	Taken-for-grantedness	Taken-for-grantedness, which is used when informants automatically legitimize actions because an alternative is unthinkable for them (Suchman, 1995).	The planned local refugee housing accommodation is perceived as legitimate because that's what Germany has always done.

Table A.2. continued

		The main distinguishing factor between comprehensibility and taken-for-grantedness is that the latter does not provide an explanation. The interviewee provides an absolute without attempting to articulate why it is an absolute. Key phrases: • It's clear/ obvious that it can work this way • Why wouldn't it? • It is what it is…	

Tricky situation (structural legitimacy versus comprehensibility): When interviewees mention the fact that an organization managed/did not manage to accommodate displaced persons in the past. If the interviewee says an equivalent to, "[i]t worked well so we should do that again next year" then it's structural legitimacy. If they say an equivalent to "[i]t worked well so I understand that they still do that," then it's comprehensibility

A.6. LEGITIMACY EXAMPLES

Table A.3. Legitimacy examples

Specific types of legitimacy	**Examples**
Exchange legitimacy	"No, no changes. Because actually we are not allowed to change anything here " "And also with the beds that are here we are not allowed to go outside of these lines because of the safety rules. "
Influence legitimacy	"We'll see which decisions come because it's very expensive and how do you do this? We call this an operation on an open heart; when you do this renovation when people are living in there. It's horrible. One time lived it through and it was not comfortable."
Dispositional legitimacy	No applicable examples were found.
Consequential legitimacy	"Most of them, they don't have lots of money and they need to find affordable apartments. It's what lot of people in [the city] do also, and we have to see where we build these houses, well, how can we get these houses, how can we make sure that affordable housing […] is not getting lost […] " "And the kitchens; it was to me most important that there's lots of space so that the people have space enough to work and

Table A.3. continued

	make their vegetables and everything else. In my former buildings, I noticed this is every time a problem."
Procedural legitimacy	"We try our best to do so much for the people, we help them." "It was a phone call and then let's get it done. This German law isn't important when the German government says, 'we take now this building and we use it for housing refugees.' Then all of the, if there is enough fire extinguishers, if there are enough space for them, all not important because when the government says, 'we took this house, you are out of responsibility.'"
Structural legitimacy	"But I would stay away from 'crisis,' I would stay away from such words." *The interviewee legitimizes organizations that accommodate refugees by refusing to define the situation as a crisis.* "The problem with [the government], like you know, they decide about if you have the right to stay here in Germany, and they will give you the papers like the residency and things like that. Nobody knows how they work, and also how they handle the situation. I don't know how they work. I went there I talked to the people who work there. And nobody gave me a good answer like how the system works."
Personal legitimacy	"How could the big boss of [the government agency] go into his office every day, look out the window and see how the people are suffering there. They don't do anything."

Table A.3. continued

Comprehensibility	"And I can see from my experience, one year, it's enough." *The interviewee talked about the fact that if the refugees stay longer than one year in temporary housing, it's not correct.* “It is like a full bottle of water, and there's one hole and you put, yeah? And so the water's still in it, you haven't solved the problem if you do this so-called fix. But you cannot say what will be in the future.”
Taken-for-grantedness	"To me it was not understandable. People in the rest of the world say, ‘If the Germans can do one thing, it is to organize’ and we have proved in the last year that we are not able to organize. It was strange to me. How is it possible we got the football championship and we can organize it? "

A.7. CODE WEIGHTS

Table A.4. Code weights

Code Weight	**Description**
0	The statement ABSOLUTELY attributes legitimacy to the withholding of accommodation for refugees or ABSOLUTELY removes legitimacy from structures that provide accommodation to refugees.
1	A statement that is somewhere between 0 and 2.

Table A4. Continued

2	The statement SOMEWHAT attributes legitimacy to the withholding of accommodation for refugees or SOMEWHAT removes legitimacy from structures that provide accommodation to refugees.
3	A statement that is somewhere between 2 and 4.
4	The statement neither provides nor removes legitimacy from the organization. This is not applicable to this study due to the fact that if a statement is selected for legitimacy it is either in favor or against, there is no in between.
5	A statement that is somewhere between 4 and 6.
6	The statement SOMEWHAT attributes legitimacy to the provision of accommodation for refugees or SOMEWHAT removes legitimacy from structures that withhold accommodation to refugees.
7	A statement that is somewhere between 6 and 8.
8	The statement ABSOLUTELY attributes legitimacy to the provision of accommodation for refugees or ABSOLUTELY removes legitimacy from structures that withhold accommodation to refugees.

(Structures: organizations, companies, government agencies and general population)

Notes about code weights:

1) When the interviewee is providing a description of a phenomenon (for or against the accommodation of refugees) without analyzing it, then do not code for legitimacy. Example: "It's a big challenge but it's fair to do it". The part "it's a big challenge" is a description and shouldn't be coded.

2) When the interviewee is describing something and saying it could be done better, then code for legitimacy (should be more than 4 if the suggested improvements help accommodating refugees, and less than 4 if those improvements don't help

accommodating refugees).

For example: "the government was not well organized, this was a problem" (over 4) -- "the government couldn't accommodate refugees and it is understandable because it would be a complicated organization" (less than 4)

A.8. Topical Coding for Legitimacy: Definitions

Table A5. Topical Coding for Legitimacy: Definitions

Topical Code	**Description**
Housing Infrastructure	Statements referencing physical structures made available for housing displaced persons.
Food	Statements related to availability and quality of food provided for displaced persons.
Livability	Statements addressing the quality of life for people staying in housing accommodations for displaced persons.
Long-term accommodation for displaced persons	Excerpts that are specifically mentioned to providing long-term accommodation for displaced persons. *Excerpts are coded for "long-term accommodation" when the interviewee was considering that displaced persons could live for an infinite duration in the accommodations they are talking about. E.g. usually individual apartments*
Renovation	Statements related to the preparation work involved with setting up housing facilities for displaced persons; construction-related improvements prior to occupation.

Table A.5. continued

Short-term accommodation for displaced persons	Excerpts that specifically refer to providing short-term accommodation for displaced persons. *Excerpts are coded for "short-term accommodation" when the interviewee was considering that displaced persons could live for a restricted duration in the accommodations they are talking about. E.g. usually tents, halls, etc.*
Water	Statements referring to provision or use of water services associated with accommodation for displaced persons. This includes: drinking water, wastewater, water quality, facilities (showers, toilets, kitchens).
Social Services	Statements referring to services provided for the benefit of the new arrival community, such as education, medical care, NOT RELATED TO INTEGRATION. E.g. education, help for paperwork, cleaning, wait at the offices.
Integration	Statements referring to the integration of displaced persons after receiving an asylum decision. This may include language courses, job training programs, etc.
Overall Population Growth	This is a general response to the population change (not necessarily including the refugee crisis). This is typically related to providing housing and overall population growth. Excerpts with this code should be in the context of justifying (or not) accommodation for refugees.
Government Involvement	Statements referring to the interaction of the government with providing accommodation to displaced persons.

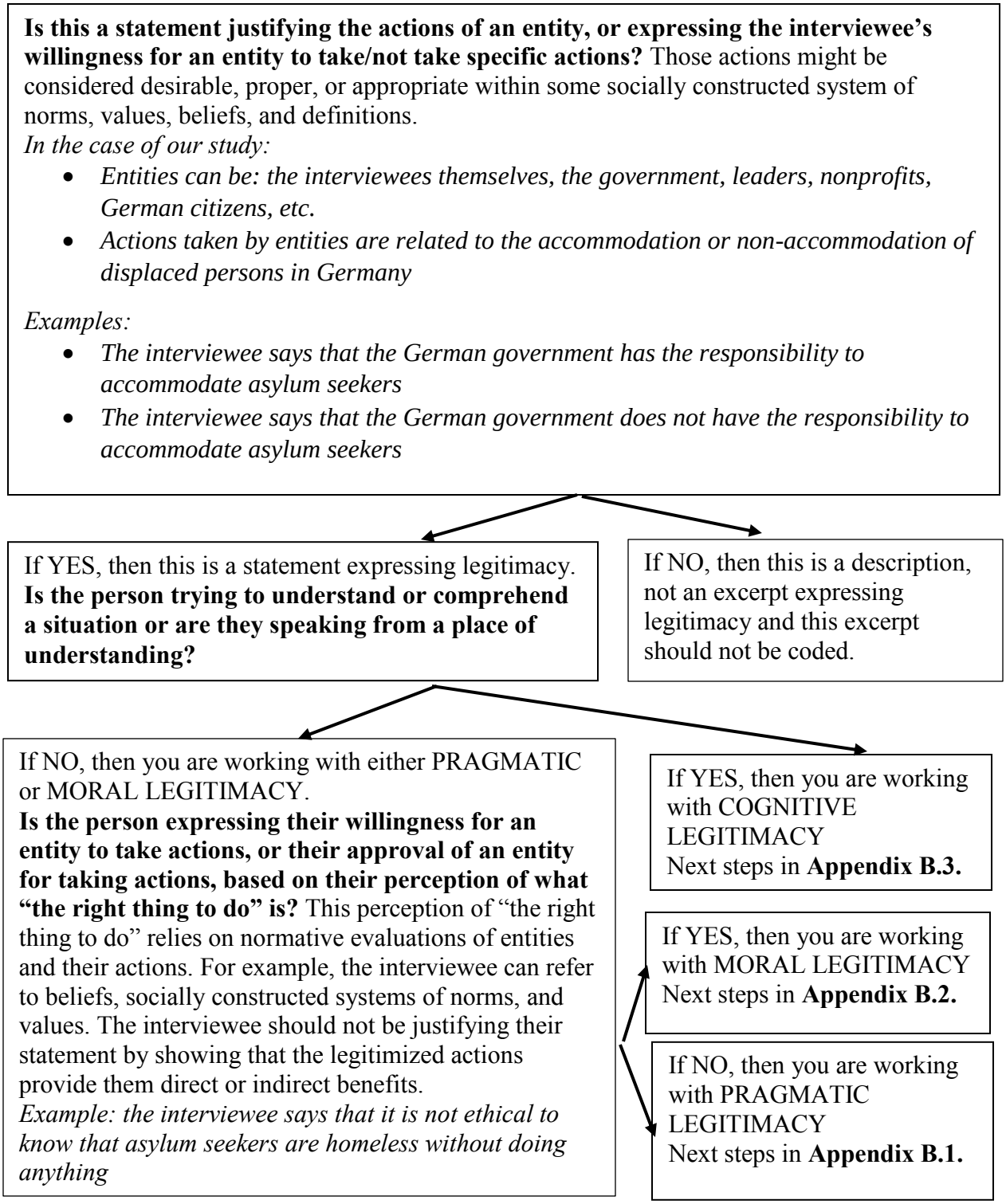
Table A.5. continued

Maintenance	Statements related to on-going improvements to the facility, post-construction (i.e. repairing showerheads or toilets).
Perception	Viewpoints regarding the provision of accommodation for displaced persons.
Community's perspective	Community sentiment towards a topic associated with providing accommodation for displaced persons (i.e. refugees, housing facility).
Utility's perspective	Utility office or employee's sentiment towards a topic associated with providing accommodation for displaced persons.
Government's perspective	Government office or official's sentiment towards a topic associated with providing accommodation for displaced persons.
Displaced Person's perspective	Displaced person's sentiment towards a topic associated with providing accommodation for displaced persons (I.e. feedback on services).
Nonprofit's perspective	Nonprofit employee or nonprofit spokesperson sentiment towards a topic associated with providing accommodation for displaced persons (e.g. an opinion expressed by an employee or in a press release published by this nonprofit).
Company's perspective	Company employee or company spokesperson sentiment towards a topic associated with providing accommodation for displaced persons (e.g. an opinion expressed by an employee or in a press release published by the company).
Validation using other person's perspective	Statement (de)legitimizing the accommodation of refugees by using other person's perspective. The person's perspective should be coded

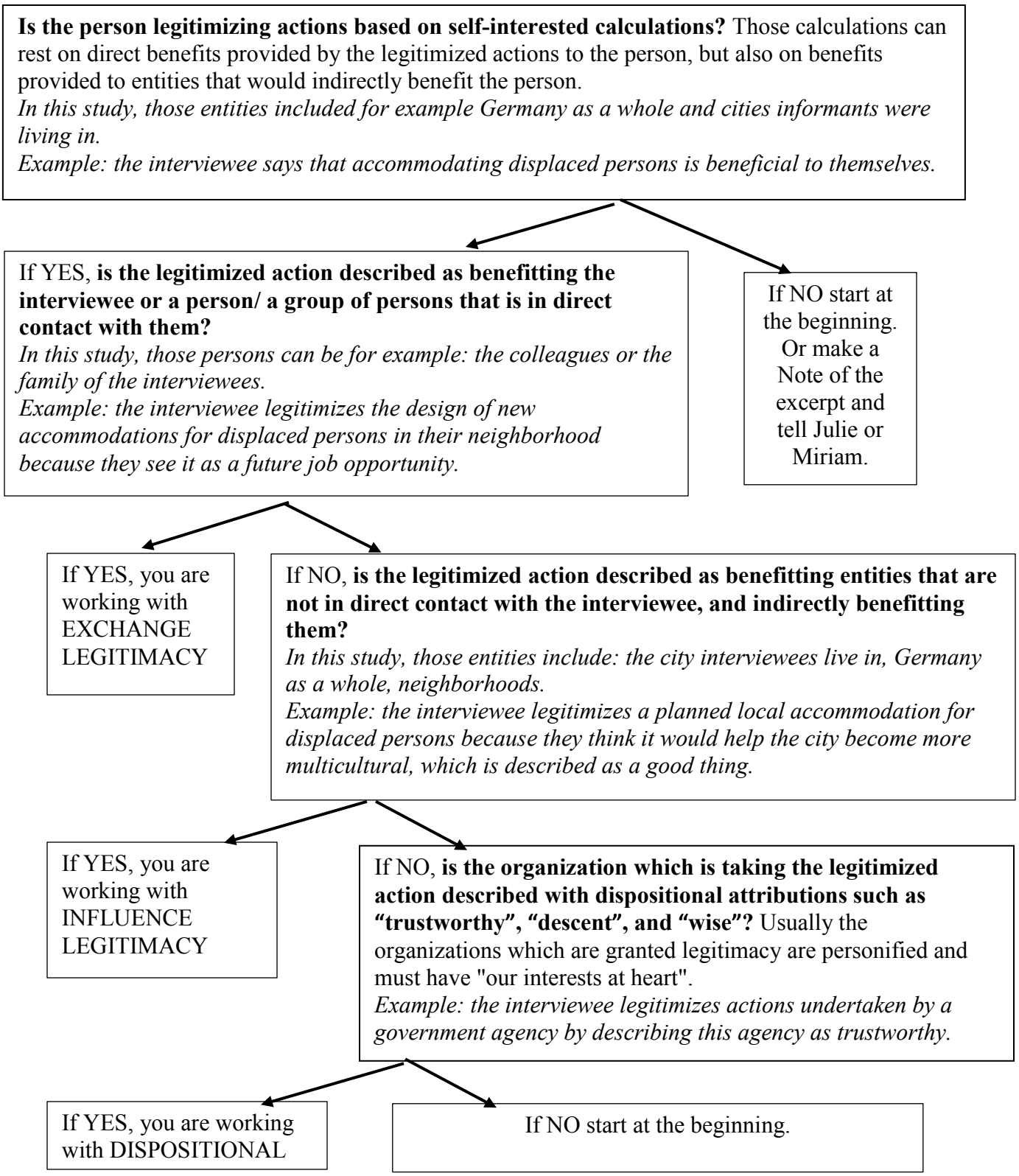
Table A.5. continued

	independently from the corresponding validation. For example: "We should accommodate refugees because all nonprofits say 'this is the best thing our country can do'." The part "We should accommodate refugees because" should be coded for Validation using other person's perspective, and the part "'this is the best thing our country can do'" should be coded for Nonprofit's perspective.
Response to Crisis	Statements that refer to the overall response to the refugee crisis. (i.e. describing general patterns, overall actions).
Utility Involvement	Statements referring to the interaction of the utility company with providing accommodation to displaced persons (i.e., network connections, maintenance).
Other Infrastructure	Statements referencing physical structures made available for accommodating displaced persons, outside of housing.
Regulation	Statements related to the regulations and permitting process associated with renovation or new development of a housing accommodation for displaced persons.

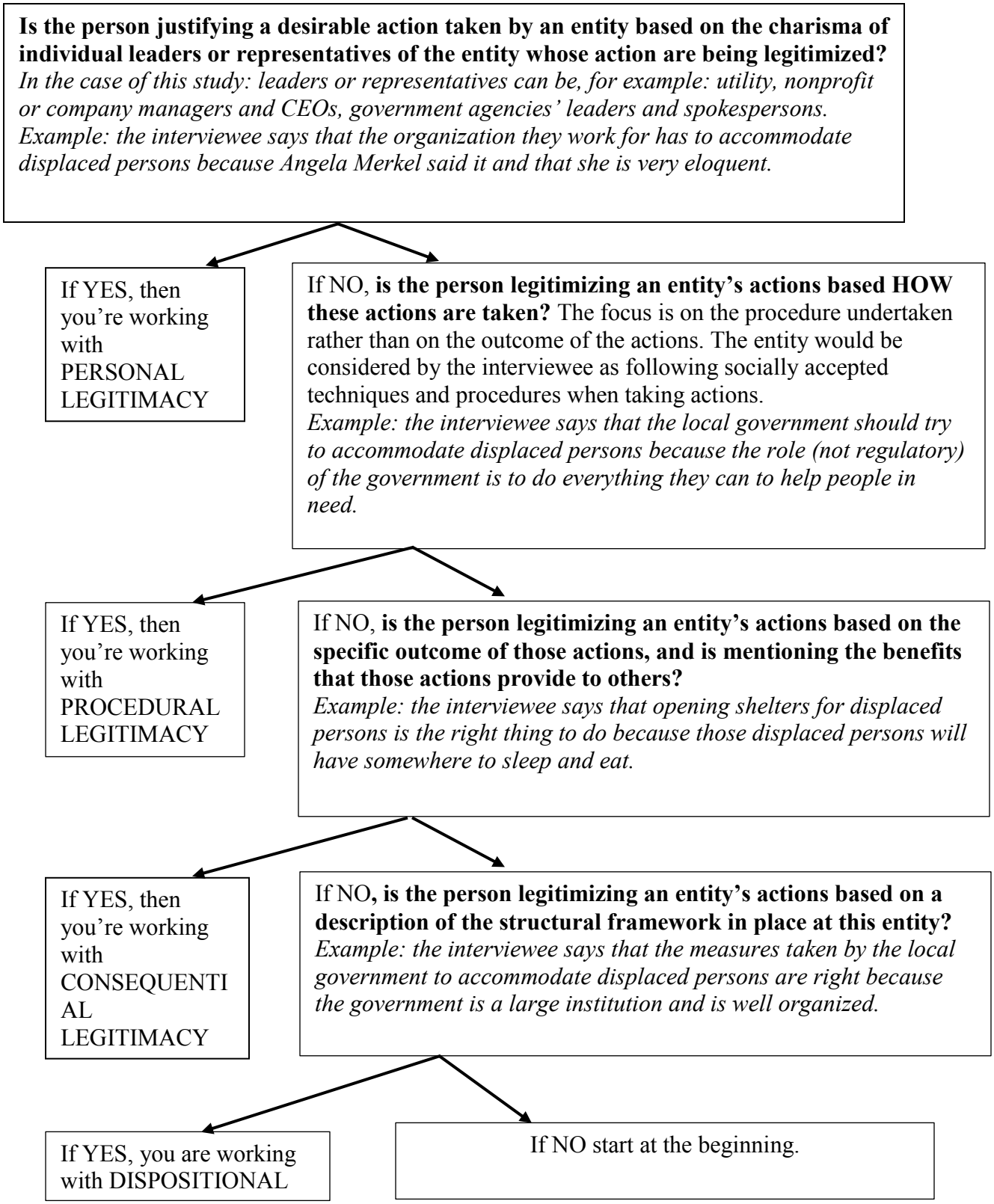
Appendix B. Legitimacy coding flow chart



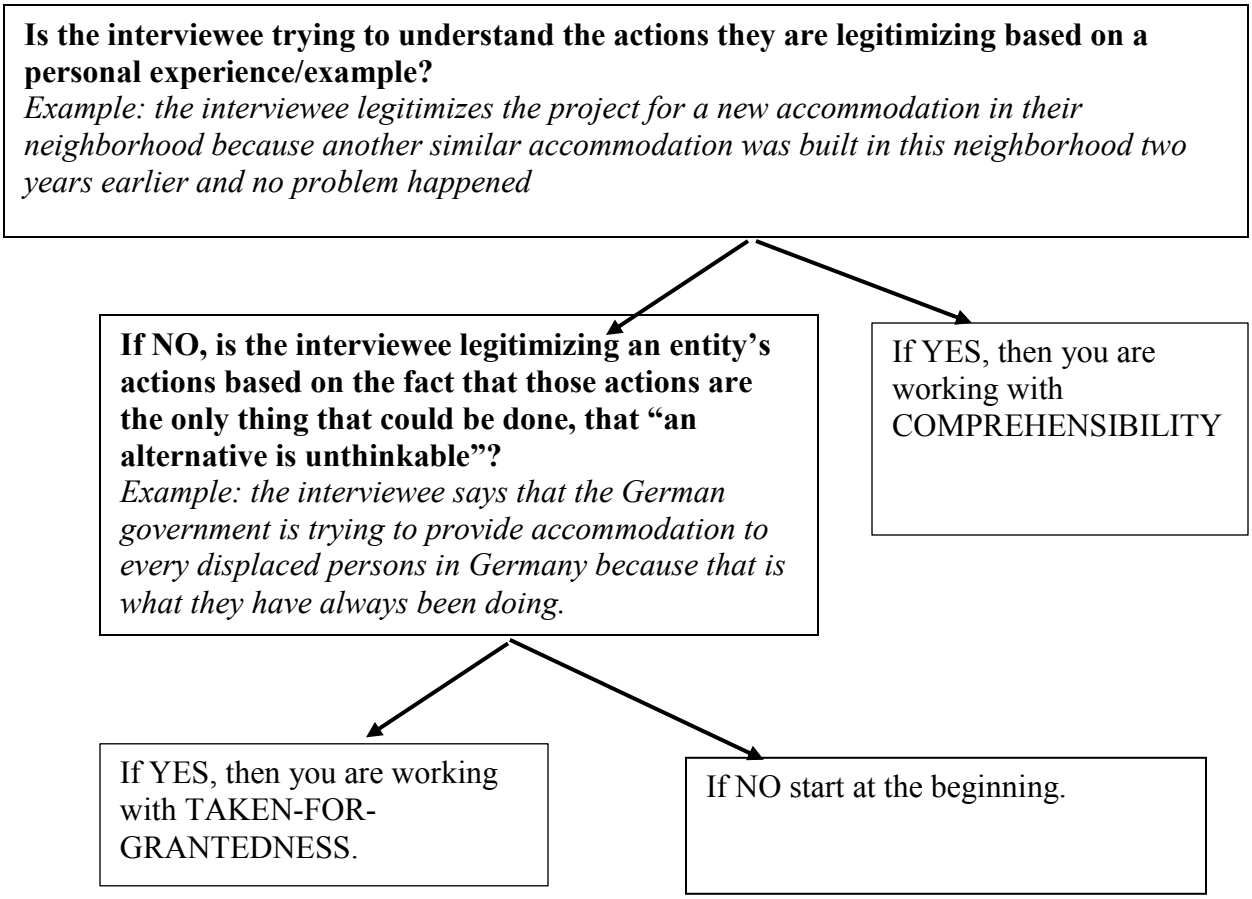
Appendix B.1. Legitimacy coding flow chart, second part: pragmatic legitimacy



Appendix B.2. Legitimacy coding flow chart, third part: moral legitimacy



Appendix B.3. Legitimacy coding flow chart, fourth part: cognitive legitimacy



Glossary

Cultural-cognitive systems: cultural-cognitive systems are "shared conceptions that constitute the nature of social reality and create the frames through which meaning is made." (Scott, 2013, p.67).

Informant: an informant corresponds to the interviewees that participated in our study

Institution: institutions are social structures that are stable in time. *"Institutions comprise regulative, normative, and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life."* (Scott, 2013, p.56)

Legitimacy: "*[l]egitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions.*" (Suchman, 1995)

Normative system (within institutions): normative systems include both values – conceptions of the preferred or the desirable – and norms – that specify how things should be done (Scott, 2013, p.64).

Regulative system (within institutions): the regulative systems correspond to regulatory processes within institutions: *"rule-setting, monitoring, and sanctioning activities".* (Scott, 2013, p.56)

References

"BAMF - Bundesamt Für Migration Und Flüchtlinge - Initial Distribution of Asylum-Seekers." 2017. Accessed April 9. http://www.bamf.de/EN/Fluechtlingsschutz/AblaufAsylv/Erstverteilung/erstverteilung-node.html.

BBC News. 2016. "Germany Migrant Bus Surrounded by Protesters," February 19, sec. Europe. http://www.bbc.com/news/world-europe-35616834.

Chan, Edwin H. W., and Raymond Y. C. Tse. 2003. "Cultural Considerations in International Construction Contracts." *Journal of Construction Engineering and Management* 129 (4): 375–81. doi:10.1061/(ASCE)0733-9364(2003)129:4(375).

Dowling, John, and Jeffrey Pfeffer. 1975. "Organizational Legitimacy: Social Values and Organizational Behavior." *The Pacific Sociological Review* 18 (1): 122–36. doi:10.2307/1388226.

Eisenhardt, Kathleen M. 1989. "Building Theories from Case Study Research." *Academy of Management Review* 14 (4): 532–50. doi:10.5465/AMR.1989.4308385.

Eurostat. 2016. News release 4 March 2016. Asylum in the EU Member States Record number of over 1.2 million first time asylum seekers registered in 2015 Syrians, Afghans and Iraqis: top citizenships.

Eurostat. 1996. "Asylum-seekers in Europe 1985-1995". Statistics in focus: Population and social conditions.

Evans, M. 2007. "'The Suffering Is Too Great': Urban Internally Displaced Persons in the Casamance Conflict, Senegal." *Journal of Refugee Studies* 20 (1): 60–85. doi:10.1093/jrs/fel026.

Gray, Clark L., and Valerie Mueller. 2012. “Natural Disasters and Population Mobility in Bangladesh.” *Proceedings of the National Academy of Sciences* 109 (16): 6000–6005. doi:10.1073/pnas.1115944109.

The Guardian. “Tensions Rise in Germany over Handling of Mass Sexual Assaults in Cologne | World News | The Guardian.” 2017. Accessed April 17. https://www.theguardian.com/world/2016/jan/06/tensions-rise-in-germany-over-handling-of-mass-sexual-assaults-in-cologne.

Guthmann, Jean-Paul, Hilde Klovstad, Delia Boccia, Nuha Hamid, Loretxu Pinoges, Jacques-Yves Nizou, Mercedes Tatay, et al. 2006. “A Large Outbreak of Hepatitis E among a Displaced Population in Darfur, Sudan, 2004: The Role of Water Treatment Methods.” *Clinical Infectious Diseases* 42 (12): 1685–91. doi:10.1086/504321.

Hofstede, Geert. 1984. “Cultural Dimensions in Management and Planning.” *Asia Pacific Journal of Management* 1 (2): 81–99. doi:10.1007/BF01733682.

Horii, Tamaki, Yan Jin, and Raymond E. Levitt. 2005. “Modeling and Analyzing Cultural Influences on Project Team Performance.” *Computational & Mathematical Organization Theory* 10 (4): 305–21. doi:10.1007/s10588-005-6283-1.

“Housing - Berlin.de.” 2017. Accessed April 8. https://www.berlin.de/fluechtlinge/en/information-for-refugees/housing/.

Javernick-Will, A., & Levitt, R. E. (2009). Mobilizing institutional knowledge for international projects. Journal of Construction Engineering and Management, 136(4), 430-441.

Javernick-Will, A. N., & Scott, W. R. (2010). Who needs to know what? Institutional knowledge and global projects. Journal of Construction Engineering and Management, 136(5), 546-557.

Kaminsky, Jessica. 2015. “Cultured Construction: Global Evidence of the Impact of National Values on Sanitation Infrastructure Choice,” September. https://digital.lib.washington.edu:443/researchworks/handle/1773/33397.

Kaminsky, Jessica A. 2016. “Cultured Construction: Global Evidence of the Impact of National Values on Renewable Electricity Infrastructure Choice.” *Environmental Science & Technology* 50 (4): 2108–16. doi:10.1021/acs.est.5b05756.

LeBreton, James M., and Jenell L. Senter. 2008. “Answers to 20 Questions About Interrater Reliability and Interrater Agreement.” *Organizational Research Methods* 11 (4): 815–52. doi:10.1177/1094428106296642.

Levine, Joyce N., Ann-Margaret Esnard, and Alka Sapat. 2007. “Population Displacement and Housing Dilemmas Due to Catastrophic Disasters.” *Journal of Planning Literature* 22 (1): 3–15. doi:10.1177/0885412207302277.

Lizarralde, Gonzalo, Cassidy Johnson, and Colin Davidson. 2009. *Rebuilding After Disasters: From Emergency to Sustainability*. Routledge.

Mack, Natasha. 2005. *Qualitative Research Methods: A Data Collector’s Field Guide*. FLI.

Mahalingam, A., & Levitt, R. E. (2007). Institutional theory as a framework for analyzing conflicts on global projects. Journal of construction engineering and management, 133(7), 517-528.

Orr, Ryan J., and W. Richard Scott. 2008. “Institutional Exceptions on Global Projects: A Process Model.” *Journal of International Business Studies* 39 (4): 562–88. doi:10.1057/palgrave.jibs.8400370.

Refugees, United Nations High Commissioner for. 2016. “UNHCR Global Report 2015 - Europe Regional Summary.” *UNHCR*. Accessed November 29.

http://www.unhcr.org/publications/fundraising/574ed7b24/unhcr-global-report-2015-europe-regional-summary.html.

Rose, Damaris. 2001. "The Housing Situation of Refugees in Montréal Three Years after Arrival: The Case of Asylum Seekers Who Obtained Permanent Residence." *Journal of International Migration and Integration / Revue de L'integration et de La Migration Internationale* 2 (4): 493–529. doi:10.1007/s12134-001-1010-3.

Saldaña, J. 2015. The coding manual for qualitative researchers. Sage.

Scott, W. Richard. 2013. *Institutions and Organizations: Ideas, Interests, and Identities*. SAGE Publications.

SCRC. 2016. "Home | Dedoose." http://www.dedoose.com/.

Singleton Jr, R. A., Straits, B. C., & Straits, M. M. 1993. Approaches to social research. Oxford University Press.

Spradley, James P. 1979. *The Ethnographic Interview*. Holt, Rinehart and Winston.

Suchman, Mark C. 1995. "Managing Legitimacy: Strategic and Institutional Approaches." *The Academy of Management Review* 20 (3): 571–610. doi:10.2307/258788.

The Telegraph. Reuters, and Agence France-Presse. 2017. "Left-Wing Protesters Clash with German Police before Right-Wing AfD Congress." *The Telegraph*. Accessed April 17. http://www.telegraph.co.uk/news/2016/04/30/left-wing-protesters-clash-with-german-police-before-right-wing/.

Thomas, G. M., H. A. Walker, and M. Zelditch. 1986. "Legitimacy and Collective Action." *Social Forces* 65 (2): 378–404. doi:10.1093/sf/65.2.378.

Toole, Mj, and Rj Waldman. 1997. "THE PUBLIC HEALTH ASPECTS OF COMPLEX EMERGENCIES AND REFUGEE SITUATIONS." *Annual Review of Public Health* 18 (1): 283–312. doi:10.1146/annurev.publhealth.18.1.283.

Vita

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